Request for Economic Stimulus Funds

Concept Proposal

Submitters:

e-Health Work Group

(Betty Regan)

Project Title:

Establishment of Health Information Technology (HIT) Regional Data/Extension Centers (Alternative Approach)

Project Partners:

State Universities, Regional Universities, KCTCS, Independent Colleges and Universities, State e-Health Professionals, Kentucky Medical Association, Kentucky Hospital Association, RHIO's, HIT vendors.

Project Background & Purpose:

The purpose of proposed projects would be to establish health information technology regional extension centers to accelerate the adoption, implementation, and effective use of certified electronic medical records and health information exchange by providers throughout rural Kentucky. These centers would provide health information technology services and disseminate best practices and other services to be carried out through the Office of the National Coordinator, U.S. Department of Health and Human Services.

The foundation for health information exchange is the electronic medical record (EMR) and e-prescribing systems implemented within individual medical practices. These complex systems require significant information technology domain expertise for support, maintenance, and growth. This expertise is often cost prohibitive or otherwise unavailable to physicians with small practices or in rural/remote areas. Limited access to this expertise creates a formidable barrier to the adoption of EMRs by many physicians in Kentucky.

- Currently only 1.3% of Hospital have fully functional clinical information systems
- An estimated 17% of physicians use some type of electronic health record
- A recent Kentucky HIT Adoption study indicated that among the 50 percent of state physicians planning to adopt EMRs within the next two years, the #1 issue was lack of availability of IT support.
- Many physician practices that have purchased EMR's fail to fully implement them, continue to maintain paper records, lack adequate training, and don't make the necessary practice management changes essential to effective utilization.

As a predominantly rural state with a high rate of poverty, Kentucky has an especially strong need for regional HIT extension centers to support the implementation and effective use of electronic medical records and information exchange. Kentucky has a disproportionately high level of Medicare and Medicaid patients. Rural clinics, small medical practices, and regional medical centers will need technical assistance to support the implementation and maintenance of electronic medical systems. There is a strong need for analysis, planning, technical consulting, system selection and configuration, system

operation and maintenance, training, change management, and dissemination of best practices. These needs are identified in the State Action Plan and other documents. In laying the foundation for its state health information exchange network, Kentucky has already worked in collaboration with the Kentucky Medical Association to establish an HIT Tool Kit, which will be a valuable tool in establishing the HIT regional extension centers.

Project Description:

The goal of this project is to develop the infrastructure and services to support adoption, implementation, and effective use of EMRs and e-prescribing systems by providers throughout Kentucky.

To adequately meet the needs, this infrastructure would consist of regional data centers staffed by systems administrators, database administrators, and informatics consultants and trainers at strategic locations to be determined. The network of regional centers would be coordinated at the state level for efficiency, assessment, sharing of experience, and development and dissemination of best practices. In addition to technical assistance, these centers could provide hosting services. This approach would make it possible for small practices and other healthcare agencies to realize the economic benefit of scale by implementing their electronic medical records on virtual servers within these regionally located data centers. This deployment creates a much more robust environment for the EMR that will include the implementation of business continuance and disaster recovery plans, system maintenance (both servers and software systems) that will allow each system to be a robust component of more comprehensive health information network providing both better health services to the patient as well a system from which data and samples may be collected to support cutting edge medical research within the state. Hosted systems will all be implemented and maintained as independent, autonomous units under the direction and control of the practices that own them. The IT services will provide health information technology support for the selection, and effective use of EMRs and e-prescribing systems and electronic health information exchange.

In order for regional data centers to support independent medical practices, several critical pieces of infrastructure must be in place.

1) **The data centers themselves:** We must identify or develop data centers throughout the state that are capable of hosting the servers (or virtual servers) on which the independent EMRs and e-prescribing systems will be deployed. Stimulus funds may be necessary for initial start-up and maintenance, but a viable business model must be developed based on cost sharing and fees for service to provide long-term sustainability.
2) **Broadband access for physician's offices:** In order for a remote implementation to be effective, each physician office must have access to sufficient internet band width such that data exchanges between client and server applications are rapid enough to respond to the health care workers in a timely fashion. The service must be sufficiently reliable and robust that the physician will have the confidence necessary to use the EMR as their primary mechanism for recording patient data.
3) **Health information technology extension services:** The health information technology extension agents would provide the comprehensive support services necessary for these systems to serve as the informational nerve centers of these medical practices. By virtue of these data centers being remote to the physician, direct, face-to-face access would be

logistically difficult. This face-to-face contact will be occasionally necessary in order bolster the confidence of physician and their staff in these systems and the support services. The extension agents would be the ideal emissaries for the one on one interactions necessary to develop both confidence and comfort with these systems. It should be made clear that, although analogous, these HIT extension services are a completely separate and distinct entity from the agricultural extension service. The HIT extension agents require a vastly different domain knowledge and skill sets.

The proposed project would carry out the following actions toward implementing the statewide health information technology regional extension network:

- Investigate alternative models and make recommendations to the KeHN Board for statewide adoption.
- Establish responsibility and accountability for statewide coordination, including infrastructure for ongoing assessment and continuous improvement.
- Develop and pilot a state prototype / model . The model would establish a framework for hosting services, business continuity/disaster recovery, technical assistance, implementation and change management consulting, training, and other needed services.
- Assess state pilot results and study initiatives in other states to develop best practices and guidelines for state-wide rollout. This would include recommendations for number and location of additional centers along with a plan and timeline for implementation.
- Assess the availability and work with the State of Kentucky to ensure sufficient network bandwidth and reliable access for all rural physicians and healthcare facilities.
- Develop a business model for long-term sustainability of the HIT regional extension centers.
- Implement additional centers based on recommendations and availability of funds.
- Investigate the potential for creating a state-wide HIT training database for use by all HIT regional extension centers and the state universities and colleges.

Expected Benefits:

1. Enhanced recruitment and retention of physicians in rural and underserved areas. The positive impact is likely to be the greatest for primary care physicians since they are less likely to be able to employ the technical specialists needed and absorb additional costs.

2. Enhanced disaster recovery capabilities because highly qualified technical specialists are more likely to perform well in this area.

3. Better integration with other EHR systems and improved data sharing capabilities, again, due to the presence of more highly qualified technical specialists.

4. Regional centralization (as opposed to statewide centralization) would lead to closer collaboration between the data centers, the physicians, and the hospitals; thereby, resulting in higher quality

Project Team**:**

To be named

Project Budget & Amount of Economic Stimulus Funds Requested:

Would be funded under either “State Grants”, or “Immediate Funding of HIT” provisions in ARRA.

Aggregate budget $25M

The budget in this project will be developed to support both construction and IT admin personnel to maintain the services. Admin personnel would probably require salaries on the order of $100k per individual. It is not clear to what degree these individuals can be shared within the datacenter